

Tao Zhao

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

2,728
citations

147801

31
h-index

182427

51
g-index

66
all docs

66
docs citations

66
times ranked

1492
citing authors

#	ARTICLE	IF	CITATIONS
1	3D DEM investigation of granular column collapse: Evaluation of debris motion and its destructive power. <i>Engineering Geology</i> , 2015, 186, 3-16.	6.3	157
2	Experimental and numerical study on the fracture process zone and fracture toughness determination for ISRM-suggested semi-circular bend rock specimen. <i>Engineering Fracture Mechanics</i> , 2016, 154, 43-56.	4.3	137
3	An experimental and theoretical assessment of semi-circular bend specimens with chevron and straight-through notches for mode I fracture toughness testing of rocks. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 99, 28-38.	5.8	127
4	Numerical Investigation of Dynamic Rock Fracture Toughness Determination Using a Semi-Circular Bend Specimen in Split Hopkinson Pressure Bar Testing. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 731-745.	5.4	123
5	Quantifying the impact of dry debris flow against a rigid barrier by DEM analyses. <i>Engineering Geology</i> , 2018, 241, 86-96.	6.3	120
6	Loading-rate-dependent progressive fracturing of cracked chevron-notched Brazilian disc specimens in split Hopkinson pressure bar tests. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2016, 88, 49-60.	5.8	110
7	Fracture prediction of rocks under mode I and mode II loading using the generalized maximum tangential strain criterion. <i>Engineering Fracture Mechanics</i> , 2017, 186, 21-38.	4.3	104
8	Stress intensity factors and fracture process zones of ISRM-suggested chevron notched specimens for mode I fracture toughness testing of rocks. <i>Engineering Fracture Mechanics</i> , 2016, 168, 174-189.	4.3	98
9	Rockslide and Impulse Wave Modelling in the Vajont Reservoir by DEM-CFD Analyses. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 2437-2456.	5.4	81
10	Investigation of rock fragmentation during rockfalls and rock avalanches via 3D discrete element analyses. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 678-695.	2.8	81
11	Evolution of Particle Breakage for Calcareous Sands during Ring Shear Tests. <i>International Journal of Geomechanics</i> , 2018, 18, .	2.7	80
12	Coupled DEM-CFD investigation on the formation of landslide dams in narrow rivers. <i>Landslides</i> , 2017, 14, 189-201.	5.4	79
13	Investigation of granular batch sedimentation via DEM-CFD coupling. <i>Granular Matter</i> , 2014, 16, 921-932.	2.2	74
14	A novel chevron notched short rod bend method for measuring the mode I fracture toughness of rocks. <i>Engineering Fracture Mechanics</i> , 2018, 190, 1-15.	4.3	72
15	Numerical Investigation of the Dynamic Properties of Intermittent Jointed Rock Models Subjected to Cyclic Uniaxial Compression. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 89-112.	5.4	67
16	Analysis of impact-induced rock fragmentation using a discrete element approach. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 98, 33-38.	5.8	66
17	Fracture Toughness Determination of Cracked Chevron Notched Brazilian Disc Rock Specimen via Griffith Energy Criterion Incorporating Realistic Fracture Profiles. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 3083-3093.	5.4	62
18	Numerical investigation of the progressive fracture mechanisms of four ISRM-suggested specimens for determining the mode I fracture toughness of rocks. <i>Computers and Geotechnics</i> , 2015, 69, 424-441.	4.7	61

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19	Effects of strain rate on the mechanical and fracturing behaviors of rock-like specimens containing two unparallel fissures under uniaxial compression. <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 110, 195-211.	3.8	60
20	DEM analyses of rock block shape effect on the response of rockfall impact against a soil buffering layer. <i>Engineering Geology</i> , 2019, 249, 60-70.	6.3	60
21	Experimental and numerical investigation on the tensile fatigue properties of rocks using the cyclic flattened Brazilian disc method. <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 105, 68-82.	3.8	59
22	Experimental and numerical investigation of cracked chevron notched Brazilian disc specimen for fracture toughness testing of rock. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 197-211.	3.4	58
23	Quantifying the Morphology of Calcareous Sands by Dynamic Image Analysis. <i>International Journal of Geomechanics</i> , 2020, 20, .	2.7	57
24	A composite particle model for non-spherical particles in DEM simulations. <i>Granular Matter</i> , 2015, 17, 763-774.	2.2	56
25	An experimental and theoretical comparison of CCNBD and CCNSCB specimens for determining mode I fracture toughness of rocks. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 1002-1018.	3.4	45
26	Dynamic Fragmentation of Jointed Rock Blocks During RockslideâAvalanches: Insights From Discrete Element Analyses. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 3250-3269.	3.4	44
27	Comprehensive evaluation of excavation-damaged zones in the deep underground caverns of the Houziyan hydropower station, Southwest China. <i>Bulletin of Engineering Geology and the Environment</i> , 2017, 76, 275-293.	3.5	42
28	Influence of Particle Breakage on Drained Shear Strength of Calcareous Sands. <i>International Journal of Geomechanics</i> , 2021, 21, .	2.7	40
29	Experimental study on the regulation function of slit dam against debris flows. <i>Landslides</i> , 2019, 16, 75-90.	5.4	37
30	Analysis of sand â woven geotextile interface shear behavior using discrete element method (DEM). <i>Canadian Geotechnical Journal</i> , 2020, 57, 433-447.	2.8	37
31	Numerical Observation of Three-Dimensional Wing Cracking of Cracked Chevron Notched Brazilian Disc Rock Specimen Subjected to Mixed Mode Loading. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 79-96.	5.4	33
32	On the Dynamic Fragmentation and Lubrication of Coseismic Landslides. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 9914-9932.	3.4	31
33	Micro-mechanical analysis of geomembrane-sand interactions using DEM. <i>Computers and Geotechnics</i> , 2018, 94, 58-71.	4.7	30
34	Particle Size Segregation in Granular Mass Flows With Different Ambient Fluids. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019536.	3.4	26
35	Experimental Evaluation of the Shear Behavior of Fiber-Reinforced Calcareous Sands. <i>International Journal of Geomechanics</i> , 2018, 18, 04018175.	2.7	25
36	Viscoelastic solutions for stresses and displacements around non-circular tunnels sequentially excavated at great depths. <i>Acta Geotechnica</i> , 2019, 14, 111-139.	5.7	24

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37	Discrete element analysis of dry granular flow impact on slit dams. <i>Landslides</i> , 2021, 18, 1143-1152.	5.4	24
38	Discrete Element Analyses of a Realistic-shaped Rock Block Impacting Against a Soil Buffering Layer. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 3807-3822.	5.4	22
39	A novel random discrete element analysis of rock fragmentation. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2020, 44, 1386-1395.	3.3	21
40	Experimental and numerical study on the fragmentation mechanism of a single calcareous sand particle under normal compression. <i>Bulletin of Engineering Geology and the Environment</i> , 2021, 80, 2875-2888.	3.5	21
41	Coupled DEM-CFD Analyses of Landslide-Induced Debris Flows. , 2017, , .		20
42	AE energy evolution during CJB fracture affected by rock heterogeneity and column irregularity under lateral pressure. <i>Geomatics, Natural Hazards and Risk</i> , 2022, 13, 877-907.	4.3	20
43	Cyclic flattened Brazilian disc tests for measuring the tensile fatigue properties of brittle rocks. <i>Review of Scientific Instruments</i> , 2017, 88, 083902.	1.3	19
44	Microseismicity and its time–frequency characteristics of the left bank slope at the Jinping first-stage hydropower station during reservoir impoundment. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	2.7	18
45	Numerical study on size effect and anisotropy of columnar jointed basalts under uniaxial compression. <i>Bulletin of Engineering Geology and the Environment</i> , 2022, 81, 1.	3.5	18
46	Influence of particle size on the buffering efficiency of soil cushion layer against rockfall impact. <i>Natural Hazards</i> , 2021, 108, 1469-1488.	3.4	15
47	Discrete element simulation of dynamic semi-circular bend flexure tests of rocks using split Hopkinson pressure bar. <i>Arabian Journal of Geosciences</i> , 2016, 9, 1.	1.3	12
48	Effect of particle breakage on the shear strength of calcareous sands. <i>Marine Geophysical Researches</i> , 2021, 42, 1.	1.2	11
49	Influence of two unparallel fissures on the mechanical behaviours of rock-like specimens subjected to uniaxial compression. <i>European Journal of Environmental and Civil Engineering</i> , 2020, 24, 1643-1663.	2.1	10
50	Solutions for lined circular tunnels sequentially constructed in rheological rock subjected to non-hydrostatic initial stresses. <i>European Journal of Environmental and Civil Engineering</i> , 2022, 26, 1834-1866.	2.1	10
51	Dynamics of loose granular flow and its subsequent deposition in a narrow mountainous river. <i>Journal of Mountain Science</i> , 2019, 16, 1367-1380.	2.0	8
52	Influence of Inter-Particle Friction and Damping on the Dynamics of Spherical Projectile Impacting Onto a Soil Bed. <i>Frontiers in Earth Science</i> , 2022, 10, .	1.8	4
53	Experimental Investigations on the Spillway Section Shape of the Breaching Process of Landslide Dams. <i>International Journal of Geomechanics</i> , 2022, 22, .	2.7	4
54	Numerical Simulation of the Collapse of Granular Columns Using DEM. <i>Special Publication - Royal Society of Chemistry</i> , 2012, , 133-140.	0.0	3

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55	Slope erosion induced by surges of debris flow: insights from field experiments. <i>Landslides</i> , 2022, 19, 2367-2377.	5.4	2
56	Generation of Complex Slope Geometries by DEM for Modeling Landslides: A Case Study of Tangjiashan Landslide. , 2018, , 11-19.		1
57	DEM modelling of cone penetration tests in lunar soil. <i>Granular Matter</i> , 2022, 24, 1.	2.2	1
58	Coupled DEM-CFD Investigation of Granular Transport in a Fluid Channel. <i>IOP Conference Series: Earth and Environmental Science</i> , 2015, 26, 012016.	0.3	0
59	Research on a Calculation Method and Three-Dimensional Simulation of a High-Filled Embankment Rheological Settlement. , 2016, , .		0
60	Effect of Particle Size Segregation in Debris Flow Deposition: A Preliminary Study. , 2018, , 73-80.		0
61	Reduction of Landslide Shear Resistance by Gravel Fragmentation: Insights from DEM Modelling. , 2018, , 34-41.		0
62	Discrete Element Analyses of Earthquake-Induced Landslide. <i>Springer Series in Geomechanics and Geoengineering</i> , 2018, , 1574-1578.	0.1	0
63	Testing DEM Approaches for Rockfall Impact Modeling. , 2017, , .		0
64	Investigation of Dry Debris Flow Impact Against a Rigid Barrier via a Discrete Element Approach. , 2018, , 20-27.		0